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Holding Children for Clinical Procedures: Perseverance in Spite of or Persevering to be Child-Centered

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Abstract: Children in acute care often need procedures and interventions, and they are frequently held, often against their wishes, to enable these procedures to be completed. This report is from a qualitative investigation in which we sought to explore what happens when children undergo clinical procedures within an acute hospital, with a focus on the use of holding for procedures. Qualitative data were generated through non-participant observation of clinical procedures ($n = 31$) and semi-structured interviews with health professionals ($n = 22$), parents ($n = 21$), and children ($n = 4$) to explore the event from the participants' perspective. Data were analyzed using constant comparison. Through the central theoretical concept of perseverance, we examined the actions, inactions and interactions of health professionals, parents and children during a clinical procedure. Two broad trajectories were noted: "perseverance in spite of," when the procedure was completed despite a child's upset and lack of co-operation; and "perseverance to be child-centered," which was characterized by a purposeful plan of action focused on a child who had been prepared and informed, and which was facilitated by a "window of opportunity" at the start of the procedure when the child was calm and engaged. Our findings highlight that professionals need to be clear about their boundaries when starting or continuing with a procedure when a child is distressed, and support preparation and engagement activities with children and parents before, during, and after clinical procedures.

Keywords: perseverance; children; clinical procedures; restraint; clinical holding; qualitative

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Health professionals are regularly required to carry out clinical procedures and interventions with children in hospitals. Such procedures can include blood sampling, radiological investigations, and medication administration. There is a growing body of high-quality evidence on children's anxiety and distress before, during, and after procedures (Cohen, 2008; Uman, Chambers, McGrath, & Kisely, 2008) and that such procedures can be facilitated by the use of preparation (Jaaniste, Hayes, & Von Baeyer, 2007; Koller, 2007), analgesia (Blount, Piira, & Cohen, 2003; Krauss & Green, 2006), distraction (Broome, Lillis, McGahee, & Bates, 1994; Gold, Kim, Kant, Joseph, & Rizzo, 2006; Koller & Goldman, 2012), focused interventions (Klassen, Liang, Tjosvold, Klassen, & Hartling, 2008; Uman et al., 2008), and parental presence (Piira, Sugiura, Champion, Donnelly, & Cole, 2005). Despite the increased use of distraction, play therapy, and other psychological approaches (e.g., guided imagery and desensitisation; Duff, Gaskell, Jacobs, & Houghton, 2012), evidence suggests that some children are still inadequately prepared or supported during interventions (Bice, Gunter, & Wyatt, 2014; Hands, Round, & Thomas, 2010).

Clinically important procedures may be invasive and unpleasant, and, on occasion, children may be reluctant to co-operate. In these instances it may be necessary for children to be held in order for the procedures to be carried out safely. Clinical holding (Lambrenos & McArthur, 2003), therapeutic holding (Jeffrey, 2002; Royal College of

Nursing [RCN], 2010), restrictive intervention (Brenner, 2013; RCN, 2010), procedural restraint (Bland, 2002), and supportive holding (Jeffrey, 2010) are terms used to describe children being physically held by professionals or their parents in order for a procedure to be carried out. Historically, the act of holding a child for a clinical procedure has been termed restraint, but recent United Kingdom (UK) nursing policies and guidance stressed the difference between restraint (forcibly holding children against their wishes) and clinical holding (a more supportive holding act with the child's agreement; Jeffrey, 2010). However, "restraint" persists as terminology in many legal and international contexts (Leroy & ten Hoopen, 2014).

Being held or restrained for clinical procedures can be a highly traumatic experience for children, their parents (Brenner, Treacy, Drennan, & Fealy, 2015; McGrath, Forrester, Fox-Young, & Huff, 2002), and the health professionals working with them (Brenner, 2013), often causing more distress than the actual intervention (Robinson & Collier, 1997). Historically, guidance on the restraint or forceful holding of children has either been absent or vague and has been inconsistently implemented. Researchers who have considered occasions of forceful holding showed that it affected the child's and family's trust of health professionals (Bricher, 1999) and their long-term emotional well-being (Lambrenos & McArthur, 2003). Bray, Snodin, and Carter (2015), in a literature review, identified that despite the frequency of children continuing to being held in acute care settings for clinical procedures, there is a paucity of evidence addressing this practice. There are no contemporary findings addressing what happens during clinical procedures that include observing practice and seeking the multiple perspectives of those present during holding incidents. Exploring what happens and what influences the use of clinical holding is an important step in identifying changes needed to further develop clinical practice.

Design

This exploratory qualitative study guided by the principles of grounded theory (Glaser & Strauss, 1967) was an examination of the actions, inactions, and interactions that occurred throughout a clinical procedure, with a focus on the use and process of holding. The research question was, "What are the actions, inactions, and interactions that can lead to a child being held in order for a clinical procedure to be performed?" Ethical approval was obtained for the project through the National Research Ethics Service in the United Kingdom, within the author's institution and from the participating hospital trust's research and development department.

Sampling and Recruitment

Sampling progressed from the general principles of purposeful sampling to theoretical sampling in line with grounded theory methods (Jeon, 2004). Participants were purposefully sampled with the support of the clinical team to maximize variation (Hallberg, 2006) and include as many possible factors that might affect variability of behavior (Mays & Pope, 2000). These factors included child's age, the presence of different members of the health team, different clinical departments, and different times of day, to allow examination of the influence of different disciplinary practices, whether cultures of practice differed between departments, and whether procedures were managed differently in off-hours. To find informants or events to assist in developing the emerging categories and concepts (Morse & Field, 1995), sampling was continued until saturation had been reached, and new data were no longer contributing to the properties of the categories.

Recruitment occurred in one regional children's hospital in England. All children (1–16 years) who were due to have a procedure during which they might be held and who did not meet the exclusion criteria were eligible for inclusion in the study. Children excluded from participation were those who were: under the care of psychological services for procedural distress; receiving palliative care; critically ill; or under the care of social services. Health professionals referred only eligible children and their parents to the researchers as potential participants. When the child and parent/carer had been identified, the researcher approached them to discuss the study, left them with an information sheet and then re-approached them, usually within about 10 minutes, when they had had the opportunity to consider participation. Through the use of clear explanation and assurance that that "no-one would mind if they did not want to take part and it would not affect their care," conditions were created to support the children to feel comfortable declining to participate. Two children declined to be observed during their procedures.

Data were collected during all times of day, including night shifts and weekends, in an attempt to gain an understanding of variation in practices across the provision of care in the hospital.

Non-Participant Observation

Non-participant observation focused on collecting rich descriptive data to enable insights to be gained into what was happening in practice (Kelleher & Andrews, 2008). Because we could not predict whether a child would be held for a procedure, and we were interested in what might lead to holding, in those observations where holding did not occur, the actions, inactions, and interactions identified would provide context for those observations where holding did occur. Observations were conducted within a designated space (e.g. cubicle, treatment room) with the written consent of all adults present (parents and health professionals) and the agreement of the children involved.

The presence and role of the researcher during the observation was overt, and all those present were aware of the nature of the research project. It was not felt that the presence of the researcher greatly influenced the behaviors of those present because within a demanding clinical area, practitioners are often too busy to maintain behavior that is radically different from normal (Mulhall, 2003). The researchers positioned themselves so that they could easily observe what was happening, but without interfering with the procedure in any way. The researcher checked with the child, parent, and health professional to be sure the chosen position was "okay." Data were collected in detailed systematic field notes recording specific events, actions and interactions during observed clinical procedures.

The researchers were known to some of the health professionals and were familiar with some of the practice settings involved in the study. Overall, access and observation appeared to be facilitated by the perceived credibility of being a fellow child care professional, with health professionals commenting that they did not mind the researchers observing their practice as they would know "what it was like." The researchers were aware of the potential influence arising from their professional experiences (e.g., their own experiences of holding children) and values (e.g., the child as an agentic being) and maintained a high degree of reflexivity.

In total, 31 procedures (all non-urgent) on children aged 1–14 years were observed across the hospital involving inpatients on two surgical wards ($n = 5$) and two medical wards ($n = 3$) and outpatients in the following departments, radiology ($n = 9$), phlebotomy ($n = 5$), accident and emergency ($n = 5$), and clinic ($n = 4$). Within these departments a wide variety of procedures were observed, as detailed in Table 1.

All of the procedures observed were completed. Twelve of the observed procedures involved the administration of local anaesthesia cream prior to the taking of bloods or cannulation, and in six cases children were administered oral pain medication. The remaining children did not receive analgesia, and many of the procedures (e.g., administration of medicines, X-ray, eye drops) did not warrant pain control.

We categorized the holding observed within three broad categories: not held at all, held gently, and held firmly (Table 1). These groupings were based on our observations of the force used to hold a child, as no other measure of the force of holding was possible. Of the 31 children observed, six children were not held at all, nine children were held gently or had one limb held, and 16 children were held firmly in order for the procedure to be completed.

Semi-Structured Interviews

Following the observation of each clinical procedure, those present (parents, health professionals, and children over 6 years of age) were invited to participate in individual semi-structured interviews. Observational and interview data were collected by two authors. The interviews were carried out within 24 hours of the observed clinical holding episode, most within the hour immediately following the procedure. The interviews were conducted within a quiet space within the clinical area. Some interviews were conducted jointly with parents and their children, while others were carried out with the parents and children separately, as preferred.

For the first five observed procedures, all those present during the procedure were approached for interviews (health professional/s, parent, and child aged over 6 years). Thereafter, although all parents and children (aged over 6 years of age) were asked to participate in interviews, a more pragmatic approach to selecting health professionals was adopted, to focus on those whose perspectives and experiences could add to the developing analysis and categories in accordance with theoretical sampling (Glaser & Strauss, 1967).

Forty-seven interviews were conducted with 21 parents, 4 children, and 22 health professionals (six nurses, five radiographers, three doctors, three health care assistants, two phlebotomists, one physiotherapist, one plaster technician, one play specialist). Fewer interviews than anticipated were conducted with children, for a variety of reasons. Most children (23 of the 31 observed) were too young to meet the inclusion criterion ($\geq$6 years old). The children who were eligible but chose not to be interviewed ($n = 4$) were hurrying to get back to school or home. Two of the four children who were interviewed had not been held, and two had been held gently.

The researchers often spent time with the children while they were waiting for their procedures, chatting to them and their families, which helped to develop rapport. The researchers also spent time with them immediately before the interview, re-confirming assent. Each interviewer explored the event from the participants' perspectives and explored their experiences before, during, and after the procedure. The interviewer used prompts to encourage participants to reflect on events observed during the procedure, discuss what they felt at certain points, and explore the actions, inactions, and interactions previously noted in the researcher's field-notes. The interviews lasted between 10 and 50 minutes. All the interviews were audio-recorded, transcribed, and checked for accuracy against the recordings. All identifying information was removed from the transcripts.

Analysis

Analysis was on-going during data collection, in line with constant comparison method procedures (Glaser & Strauss, 1967). Two researchers undertook all steps of analysis, which was informed by discussions with the wider research team.

Table 1. Procedures ($N = 31$), Attendees, and Children's Characteristics and Responses, Grouped by Type of Holding of Child

Type of Holding		Child's Age and Gender	Procedure	Who Was Present	Child's Emotional State
Not held at all		2 yo boy	Plaster removal	Mother, father, sibling, technician	Calm
		7 yo girl	Local anesthetic application	Mother, father, 2 technicians	Crying
		7 yo boy	Injection	Mother, technician	Calm[a]
		9 yo boy	Removal of catheter	Mother, 2 nurses	Crying while using Entonox
		11 yo boy	Blood sample	Mother, technician	Anxious[a]
		13 yo girl	Blood sample	Mother, technician	Calm
Held gently	Arms and legs held gently by mother and father	1 yo girl	X-ray	Mother, father, technician	Not upset
	Arms held by nurse	1 yo boy	Change of stoma bag	Mother, nurse	Calm
	Cuddled round waist by mother	2 yo boy	Blood sample	Mother, cousin, technician	Upset
	Arms held by father	3 yo boy	X-ray	Father, radiographer	Not upset
	One-arm cuddle by mother; technician held hand	3 yo boy	Blood sample	Mother, technician	Calm
	Head held by mother	4 yo girl	Laceration gluing	Mother, nurse	Not upset
	Arm held by technician	5 yo boy	Injection	Mother, 2 technicians	Anxious and whimper when needle inserted
	Mother held hand	7 yo girl	Blood sample finger prick	Mother, father, technician	Slight cry when lancet stab[a]
	Arm held by mother	10 yo boy	Removal of K wires	Mother, doctor, nurse	Not upset[a]
Held firmly	Wrapped in blanket and tightly held by father prone on bed	1 yo boy	Eye washout	Father, mother, nurse	Distressed
	Head firmly held by father	1 yo boy	Nebulizer	Father, nurse	Not upset
	Arms held firmly by mother	1 yo girl	X-ray	Mother, technician	Crying
	Arm held firmly by mother	1 yo boy	Removal of plaster	Mother, technician	Distressed
	Body held tightly by mother	1 yo boy	Plaster removal	Mother, doctor, 2 technicians	Crying
	Arm and hand held tightly by mother, nurse held arm	2 yo boy	Change of dressing	Mother, sibling, 2 nurses, junior doctor	Small cry when dressing removed but otherwise calm
	Arms firmly held by mother and child's body pinned between mother's knees	2 yo girl	Oral medication administration	Mother, nurse	Distressed
	Body and limbs held forcibly by mother and father	2 yo boy	X-ray	Mother, father, technician	Very distressed
	Technician holding foot, technician holding leg firmly	2 yo girl	Injection	Mother, 2 technicians	Crying and trying to pull back leg
	Held by mother round body tightly and legs	2 yo boy	Dressing removal	Mother, nurse, play specialist	Crying
	Held tightly by family member	3 yo girl	X-ray	Mother, family member, technician	Anxious
	Father cuddling and holding firmly on knee, technician firmly holding arm	3 yo girl	Blood sample	Mother, father, technician	Crying and shouting
	Held round body by mother, technician held legs	3 yo girl	Eye drops	Mother, technician, nurse	Screaming
	Held round body by mother, arm held by nurse	3 yo boy	Blood sample	Mother, father, doctor, nurse	Upset
	Firmly cuddled by Mother, technician holding arm firmly	12 yo girl	Blood sample	Mother, technician	Crying
	Arm held tightly by Nurse, hand held firmly by mother	14 yo girl	Laceration suturing	Mother, nurse, doctor	Upset while using Entonox

[a]Interviewed for study.

Data were initially coded on a line-by-line basis, focusing on examining "what is happening here" (Glaser, 1978), with the codes aiming to describe actions, inactions, and interactions. Examples of codes used included "needing to get it done," "telling me what is going to happen," and "getting parents to hold." Analysis then progressed to the development of more focused codes by a critical examination of the processes and the factors which seemed to influence the procedure. This was supported by incident-by-incident coding in which interviews were compared with the other interviews, observation episodes compared with other episodes, and interviews compared with the observational field notes from the same clinical episodes. This constant comparison supported the analysis of the variations between episodes and experiences and led to the development of the categories.

Memos were used throughout the process of analysis to capture the thoughts and reflections of the researchers and aid the conceptualisation of categories. Analysis was supported and illuminated by the creation of pictorial charts that mapped each procedure trajectory according to the observed actions, inactions, and interactions of, and between children, their parents and the health professionals present during a clinical procedure. In this paper we explore how the actions, inactions, and interactions of the child, parents, and health professionals influenced the trajectory of a child's clinical procedure. The text will be supported by the use of pictorial case studies to illustrate the key events that happened during an observation of a clinical procedure.

Findings

All of the procedures were completed, but two trajectories characterized how the procedure was completed. Perseverance was fundamental in both. Perseverance is characterized as "constant persistence in a course of action, purpose or state; steadfast pursuit of an aim" (Loeb, 2005, p. 21). Both trajectories of perseverance were underpinned by effort, persistence, and challenge.

In many of the cases, the health professionals and parents followed a trajectory of perseverance to complete a procedure "in spite of" the child being uncooperative and displaying signs of upset. In other cases, the health professionals and parents followed a trajectory in which they were persevering "to be child-centered." In these, proactive and child-centered practices, actions, and interactions were predominant. Although these trajectories were distinct, they were not completely discrete; for example, some actions and practices within the "in spite of" trajectory were focused on supporting the child, and when emotions, particularly the child's level of upset, became raised within the "to be child-centered" trajectory, there was a decrease in engagement with the child and a tip towards the "in spite of" trajectory.

While each procedure was unique and differed according to the child, procedure, those present, and the context, these two trajectories illustrate how a child's, professional's, and parent's actions, inactions, and interactions can shape what happens during a clinical procedure. In the examples below, "Int" denotes interviewer, "P" parent, "C" child; age of child is in years.

Perseverance in Spite of

When a child was upset before or at the start of a procedure, this set the scene for the parents and health professionals to focus on completing the procedure as quickly as possible. This often meant that they did not overtly acknowledge the child's signs of distress or anxiety and did not stop the procedure or alter their approach when a child was uncooperative. The choice to persevere in spite of a child's upset was justified by the stated belief that this was in the child's best interests, as the following parent explained, "Just to get it over with and just do it quick and then that way she hasn't got time really to be traumatized and kick off even worse" (P:C aged 2).

A child's short-term distress seemed to be justified by the successful completion of the procedure. One of the children talked about how getting the procedure done quickly could be positive.

> Int: What were the things that made it okay for you?
> Child: They did it fast. (C aged 10)

Delaying, cancelling, or failing to complete a procedure in response to a child's distress was viewed negatively by some parents and health professionals. They described this as wasted time that was likely to cause more upset to the child. When children had prior experience of procedures and had previously been distressed, some parents described how they "anticipated the storm" and chose to withhold information from the child about an imminent procedure. In these cases parents and health professionals "braced" themselves for the procedures. One girl's parents described how they had not forewarned her of an impending procedure until they had arrived at the department because she had previously been so upset: "We keep it from her to the last minute otherwise we would never have got her in the car this morning to get here. She would have locked herself in her room" (P:C aged 7).

In the cases where parents had decided to withhold or "shape" (e.g., tell the child an untruth about what would happen) the preparatory information, the health professionals did not attempt to contradict the story that had been told to the child. This decision to withhold information from the child was sometimes explained as being in their best interests, as it shortened the amount of time the child would be anxious and worried.

Although the interviewees talked of what they perceived as the child's best interests, many parents and professionals discussed an assumption that holding a child was an expected and acceptable part of getting a procedure done. One health professional described how physical displays of distress and upset were an inevitable part of completing a procedure: "They could be 6 or 7 years old and they're screaming and kicking and punching and biting—it's a job that's got to be done, isn't it?" (HP). When asked about how it felt to be gently held, one of the children made clear it made the procedure scarier: "It just felt like scarier because it felt like it [the procedure] was going to be dead long" (C aged 7 years).

When health professionals and parents decided to "just get it done" despite the child's upset, there were no verbal discussions of how things could be done differently. Holding seemed to set the scene for children to have an unpleasant experience. Figure 1 maps the trajectory of a girl, aged 3 years, who needed pre-operative eye drops and in which her mother and the health professionals did not respond to her verbally despite her displays of distress.

In some procedures, parents and especially health professionals acknowledged they were encountering difficulties and tentatively checked with each other whether it was acceptable to persevere in spite of the child's distress. This checking was rarely overt or part of a discussion of possible alternative strategies but was done by professionals asking, "Is he/she always like this?" or "does he/she normally get so upset?" When parents confirmed that their child was usually upset, this created reassurance between the adults present that it was acceptable to persevere with the procedure. This is illustrated in the case of a 2-year-old boy who had frequently come to the radiology department for X-rays to be completed (see Fig. 2).

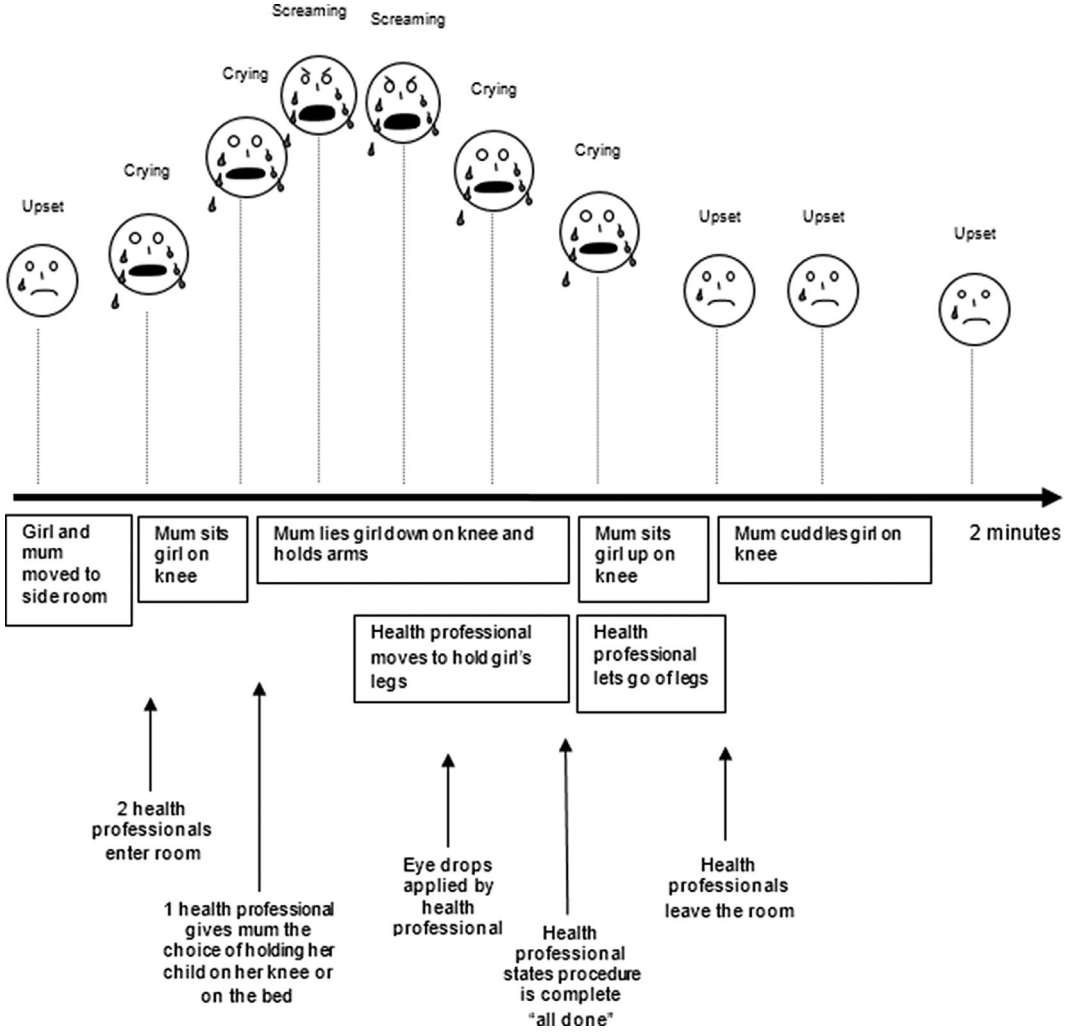

FIGURE 1. Three-year-old girl having pre-operative eye drops.

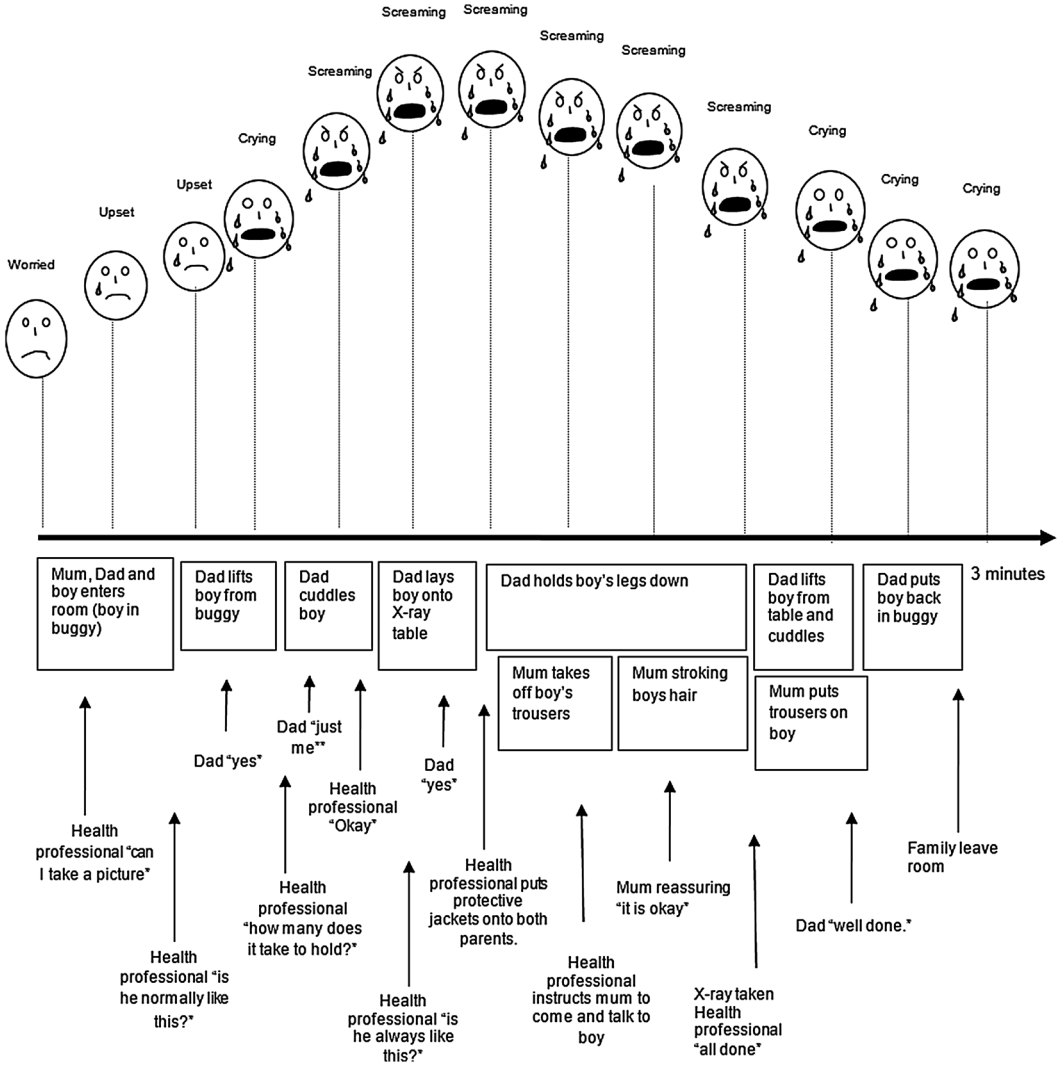

FIGURE 2. Two-year-old boy having an X-ray.

Many health professionals discussed their uncertainty about the boundaries to holding a child for a procedure; their actions and inactions were influenced by their own personal beliefs, the practices within the department, and most noticeably by the influence of parents' actions, inactions, and interactions with their children. Several of the health professionals discussed being comfortable to persevere with holding during a procedure, despite a child's distress, as long as the parents acknowledged or expressed their support for the procedure to be completed. One professional described how their practice in Figure 2 had been predominantly led by the expressed wishes of one father: "Dad says he always screams, he's done it lots of times, so dad said we're best getting on with it" (HP). Health professionals' reliance on parents as arbiters of an acceptable level of children's distress led some professionals to reflect on whether, at times, boundaries had been crossed. Despite this unease over their professional boundaries being pushed, these professionals persevered in certain procedures.

Many of the professionals explained how they protected their boundaries, saying that they did not hold children for procedures but that they "used" parents to hold, because this was better for children, and the professionals were less likely to have to deal with any litigation or complaint if the procedure did not go well. There were contradictions in some of the professionals' statements. For example, one who described holding as counterproductive ended by saying that parents helped by holding down their children:

> We don't use any force or any method which requires force because kids don't like to be held down and I think it is counterproductive—so usually with the help of parents who can hold the child down (HP).

The uncertainty of health professionals and their reliance on parents to define when it was or was not appropriate to persevere with a procedure may have been influenced by their reported lack of training, education, and professional guidance relating to this aspect of their practice. Most health professionals (18 of 22) reported a limited awareness or knowledge of the local or national guidance which underpins procedures with children and the use of holding.

Persevering to be Child-Centered

In some cases, the starting point on the procedure trajectory was characterized by the initial calm of the child and the situation. In most of these cases the child had been prepared and informed about the procedure at home, and parents and health professionals actively supported, planned, and acknowledged that procedures could be distressing. In these cases, perseverance involved the purposeful following a plan of action, rather than persevering in spite of difficulties. This category was underpinned by the adults' focus on adopting child-centered practices, regardless of the child's age.

In these cases, health professionals and parents did not assume that the upset of a child was inevitable, expected or accepted. A plan was apparent, which had begun with preparing the child at home before the procedure and actively including him or her in a child-centered manner from the outset. Several of the parents discussed how it was important to make sure their children knew what was happening:

> I find it is better if things are explained to her because then she's got at least a thought—"What's this person doing to me?" If it is explained to her she might not like what's going to happen to her but at least she knows it is being done for a reason. (P:C aged 5)

These parents seemed purposeful in their decisions to prepare and inform their child. The children interviewed also discussed how it helped them if they knew what was going to happen:

> Int: Do you like to be told and know about things beforehand?
> C: Yeah.
> Int: What is good about knowing before what is going to happen?
> C: So I know how it's going to hurt or not going to hurt. (C aged 7)

This preparation supported children to be calm at the beginning of procedures, which in turn provided a window of opportunity for the adults to engage with them and initiate distraction. If holding was used in procedures in which the child was calm at the outset, it was more often supportive and less forceful than in other cases, especially those in the "in spite of" trajectory. The adults present seemed oriented toward enabling the child to have a positive experience of the procedure, and they initiated and maintained interaction with them throughout the procedure. This thoughtful determination and active engagement in following a plan of action enabled even some children under 4 years of age to need minimal or no holding during a procedure. Figure 3 maps the trajectory of a three-and-a-half-year-old boy who had been prepared for the procedure by his parents, was not upset at the outset of the procedure, and was actively distracted and engaged from the outset and throughout the procedure.

In sum, in order for parents and health professionals to pursue the trajectory of persevering to be child-centered, the child needed to be calm and prepared for the procedure and remain relatively calm throughout the procedure. In a few cases where the child was calm at the beginning of the procedure but then became upset and uncooperative, the adults seemed to shift to the "persevering in spite of" trajectory, and their main focus became completing the procedure, regardless of the upset and distress of the child. The determination and purposefulness of the parents and health professionals to focus and engage with the child was lost when the emotional challenge was raised. Then, the adults were faced with the conditions that underpinned the "in spite of" trajectory: a distressed child and the perception that the procedure needed to be completed regardless of the level of restraint required. In Figure 4, we present a pictorial overview of the theoretical category of perseverance as illustrated through the two broad and nuanced trajectories. The figure summarizes how the process of holding a child for a procedure was influenced by the action, inaction, and interactions of those involved, and the influences that could "tip" the process from "being child-centered" to "in spite of."

Discussion

In this study we aimed to explore what happens in respect to the use of holding for procedures with children. Despite professional guidance that holding should only be used as a last resort, and that restraint (forcibly holding a child against his or her wishes) is only to be used to prevent serious harm (RCN, 2010), half of the observed procedures in this study (16 of 31) involved holding that was more indicative of restraint than holding. Perseverance and

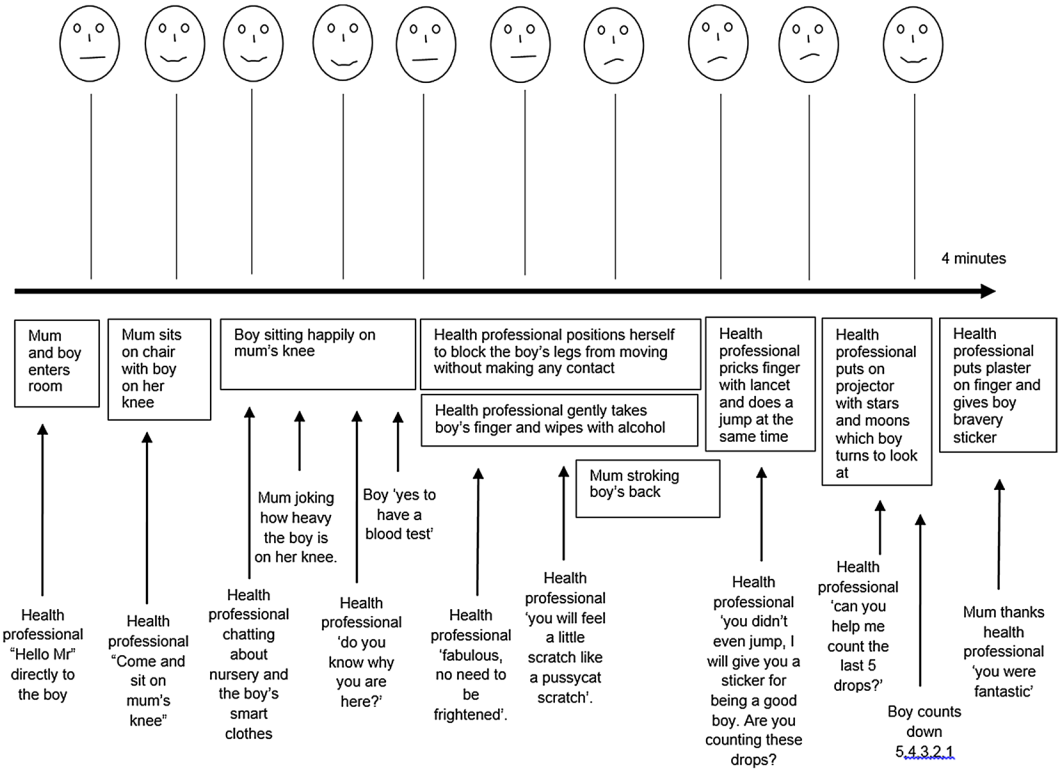

FIGURE 3. Three-and-a-half-year-old having a finger prick blood sample.

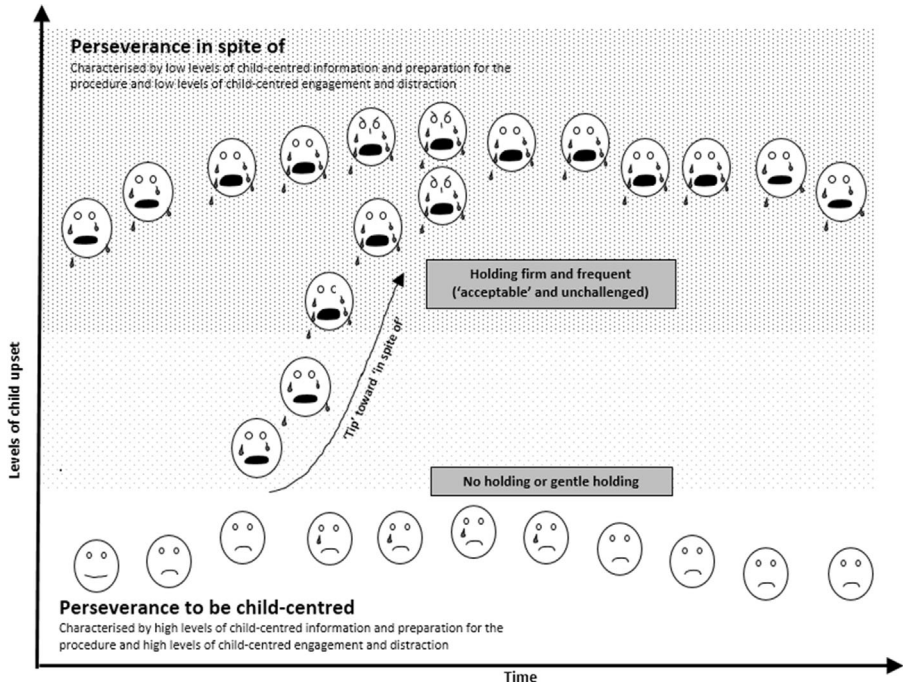

FIGURE 4. Pictorial overview of the theoretical category of perseverance.

holding "in spite of" were made possible by adults' perception that distress was an acceptable and expected part of "getting it done" because the distress was short-term (contained in the time period around the procedure) and the procedure was in the child's best interests. This justification was presented as reasonable when compared to the possibility of a protracted or delayed procedure.

The decision of how a child's best interests are served continues to be subjective (Baines, 2010). Despite the recognition that children should have the right to express their views, and that these should be given due weight in accordance with their age and maturity (United Nations General Assembly, 1989), this does not always happen in practice. A child's call to "stop, stop, stop" or non-verbal signs of distress should cause professionals and parents to acknowledge and reflect on whether their actions are in the child's best interests or whether they are overriding important cues because they are caught up in the momentum of completing a procedure. The multiple actors who are often involved in a child's procedure can have different agendas and interpretations of what constitutes best interests and acceptable actions and choices (Carter, Bray, Dickinson, Edwards, & Ford, 2014). Health professionals in this study described instances of feeling uncertain and persuaded by parents to persevere to complete a procedure despite a child being uncooperative and distressed; they continued despite disquiet about their boundaries of practice being stretched.

Our findings that holding was described by some as an expected and acceptable part of carrying out invasive procedures support previous evidence that the holding of children for clinical interventions and procedures is often uncontested in practice (Bray et al., 2015; Brenner, 2013, 2015). Once a procedure was underway, the inherent momentum seemed to create conditions that meant the health professionals and parents were less able to pull back from the committed trajectory, re-assess the situation, and engage in an alternative approach. The emotional challenge created by a distressed and uncooperative child embroiled the adults in a situation where the focus was increasingly on completing the procedure, and engagement with the child decreased.

The concept of perseverance provides some explanation of the adults' behavior and resonates with Rothermund's (2003) discussion of how perseverance to complete a task can mean that signals or feedback that threaten the completion of a task are resisted. In studies of belief perseverance, people can cling to their accepted practices to an unwarranted extent despite challenging evidence (Anderson, Lepper, & Ross, 1980; Jelalian & Miller, 1984). The findings from this study suggest that children's lack of cooperation and upset were perceived as a challenge and obstacle to be overcome rather than as a trigger for professionals to question their actions.

The cases where children were co-operative at the beginning of a procedure and then became distressed and un-co-operative often led to professionals reducing their efforts to distract and engage in with the child and resorting to perseverance to complete the procedure in spite of the child's upset. The "perseverance to be child-centered" trajectory is inherently fragile and apparently easily tipped by a child's distress and lack of cooperation, creating conditions in which people may be less able to persevere to be child-centered. As the end of a trajectory is approached or in sight, it can be harder for those present to step back, and they display greater effort and perseverance to achieve their goal (Toure-Tillery & Fishbach, 2011). Many clinical procedures are brief and performed frequently by health professionals, creating a context in which the end is always in sight to them. This may explain why professionals and parents persevered despite the child's cues of distress and dissent, with the end seeming to justify the means and clearly in sight.

When health professionals and parents followed a pro-active, purposeful, and child-centred plan by preparing, informing and involving the child from the outset and throughout the procedure, our findings aligned with Loeb's (2005) conceptual analysis that perseverance is the actions of people to pursue and respond to a challenging situation through a desire to do the right thing. The cases of the "to be child-centered" trajectory were purposeful and often followed a well-rehearsed script of child-focused engagement, distraction, and interaction. There was a greater focus on the "means" rather than the ends of getting the procedure done, reflecting other evidence that means-focused actions are characterized by a desire to do things the right way (Toure-Tillery & Fishbach, 2011). These cases required health professionals to reject the expectation that children, especially young children, would inevitably be upset during procedures.

In this trajectory, health professionals and parents interacted directly with children and used high levels of distraction and child-centered engagement. Others have reported how children respond positively to being prepared and informed for procedures (Jaaniste et al., 2007; Koller, 2007). We saw that those prepared, informed, and engaged in a child-centered way generally entered the scene in a calm manner, which provided a window of opportunity for the professionals and parents to establish the conditions for a "perseverance to be child-centered" trajectory.

Conclusion

In this study we examined what happens during every-day clinical procedures and found that some children were held against their wishes. Some professionals and parents described a child's lack of cooperation and upset as an expected and acceptable obstacle to be overcome rather than as a cue that a different approach may be indicated. In these situations, procedures were carried out in spite of

these cues. When children were prepared and calm at the beginning of a procedure, parents and professionals had a window of opportunity to initiate and maintain child-centered engagement, distraction, and interaction.

The findings from this study must be considered in light of the data being collected from one tertiary center in the North West of England, but they suggest that health professionals should reflect upon the trajectories present within their own practices and, as appropriate, shift their practices towards child-centered approaches rather than working within "in spite of" trajectories. Professionals should also consider how the momentum of a procedure may mean that they become complicit in holding a child. Future researchers should focus on interventions to help health professionals and parents support and facilitate children to prepare for and remain calm during procedures. Researchers also can further explore the insights of children who have been held for procedures and explore how they define their best interests in these circumstances.

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